

Remarks

Claims 1-5 and 26 were rejected under 35 USC § 102(b) as being anticipated by U.S. Patent No. 5,663,058 to Sparks. In light of the amendments above, applicant respectfully submit that claims 1-5 and 26 are no longer anticipated by Sparks.

The above claims has been amended to include a magnet coupled to the deformable/flow-responsive element and a sensor which is capable of detecting the movement or presence of the magnet. Sparks does not disclose such an embodiment. Sparks utilizes a deformable body that is coupled to a piezo-resistive element or a strain gauge in order to determine the position of the deformable body. The present invention utilizes magnets to determine position changes of the deformable body.

While Sparks' embodiments can readily determine the level of flow through a fluid pathway, the mechanical nature of its operation has several disadvantages not present in the claimed embodiment. Using magnetic fields to determine the position of the deformable body generally provides a more accurate and more reliable method of determining flow and flow direction.

Claims 19, 20 and 26 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 5,663,058 to Sparks. The applicant respectfully submits that, as amended, the above claims are no longer made obvious by Sparks. As stated above, claims 19 and 20 has been amended to include a magnet coupled to the deformable/flow-responsive element and a sensor which is capable of detecting the movement or presence of the magnet. This feature is neither disclosed nor taught in Sparks.

Claims 21-23 and 25 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 5,663,058 to Sparks in view of U.S. Patent No. 5,259,373 to Gruenke et al. The applicant respectfully submits that, as amended, the above claims are no longer made obvious by Sparks and Gruenke.

Claims 21-23 and 25 have been amended to include a magnet coupled to the deformable/flow-responsive element and a sensor which is capable of detecting the movement or presence of the magnet. Sparks does not teach or disclose of such a structure.

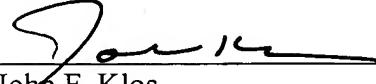
The Office action states that Gruenke (in Col. 10, lines 63-68) makes obvious the use of a Hall Effect sensor to replace the piezoelectric sensor of Sparks. We respectfully disagree, Gruenke teaches of using a magnet located on a stator of a motor and a Hall effect sensor which counts the revolution of the motor by sensing the magnets as the stator rotates. Gruenke does not use the Hall Effect sensor to determine the amount of deformation in a deformable body nor does Gruenke advocate such a use. Gruenke simply uses the Hall Effect sensor to count the number of times a magnet has passed its magnetic field. Gruenke does not disclose or teach of using a Hall Effect sensor to determine the flow through a fluid pathway as disclosed by the above-captioned application. Neither Sparks or Gruenke, by themselves or in combination, do not teach of a flow sensor using a magnet coupled to a deformable/flow-responsive element and a sensor which is capable of detecting the movement or presence of the magnet.

Consequently, we respectfully submit that, as amended, claims 21-23 and 25 are not made obvious by Sparks in light of Gruenke.

Conclusion

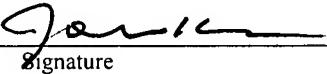
Applicant respectfully submits that, as amended, the subject application is in condition for allowance, and allowance thereof is kindly requested. Should the Examiner wish to discuss these claims further, or should an Examiner's Amendment be needed in order for the claims to proceed to allowance, the Examiner is invited to contact the undersigned attorney at the Examiner's earliest convenience.

Respectfully submitted
Compumedics Limited,
by its Attorneys


John F. Klos
Registration No. 37, 162
Aleya R. Champlin
Registration No. 36,251
Fulbright & Jaworski L.L.P.
80 South Eighth Street, Suite 2100
Minneapolis, MN 55402-2112
Telephone: (612) 321-2800

Dated: November 4, 2004

CERTIFICATE OF MAILING UNDER 37 C.F.R. 1.8: I hereby certify that this paper and any papers referred to herein are being deposited with the U.S. Postal service, as first class mail, postage prepaid, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 4, 2004.

John F. Klos: 

Signature